

WHAT IS CLAIMED IS:

1. A composition comprising
 - a) a polymer derived from a macrocyclic oligomer; and
 - b) a network of loosely associated nanofibers wherein the carbon
5 nanofibers are dispersed in the polymer matrix and the composition demonstrates a conductivity of 1×10^{-5} S/cm.
2. Compositions according to Claim 1 which further comprise a polyfunctional chain extending agent.
3. Compositions according to Claim 1 which further comprise a core shell
10 rubber.
4. Compositions according to Claim 3 wherein the core shell rubber has functional groups on the surface of a core shell rubber.
5. Compositions according to Claim 1 which further comprise a polyfunctional active hydrogen-containing polymer.
- 15 6. Compositions according to Claim 1 which comprise
 - a) from about 50 to about 98 parts per hundred by weight of the composition of polymer matrix, and
 - b) from about 2 to about 20 parts per hundred parts by weight of the composition of carbon nanofibers.
- 20 7. Compositions according to Claim 1 wherein the aspect ratio of the carbon nanofibers is 150 or greater.
8. A composition according to Claim 1 wherein the polymer matrix comprises a polyester derived from macrocyclic oligoesters.
- 25 9. A process according to any one of Claims 1 to 8 for the preparation of a polymer matrix having dispersed therein a network of associated carbon nanofibers which comprises contacting a network of carbon nanotubes with molten macrocyclic oligomer and a catalyst for polymerization of the macrocyclic oligomer under conditions that the macrocyclic oligomer cyclizes and polymerizes with the carbon nanofibers dispersed therein.

10. The process of Claim 9 wherein the temperature of the reaction mixture is 150°C to about 300°C.

11. A molded article comprising the composition of any one of Claims 1 to 8.